Moving to reliable care

The new challenge for paediatrics

Peter Lachman

Great Ormond Street Hospital for Children NHS Foundation Trust

Programme

- Theories of reliability using medication safety as the model for teaching
- Workshop on responding to deterioration
- Application to improving communication

Foundations for safety

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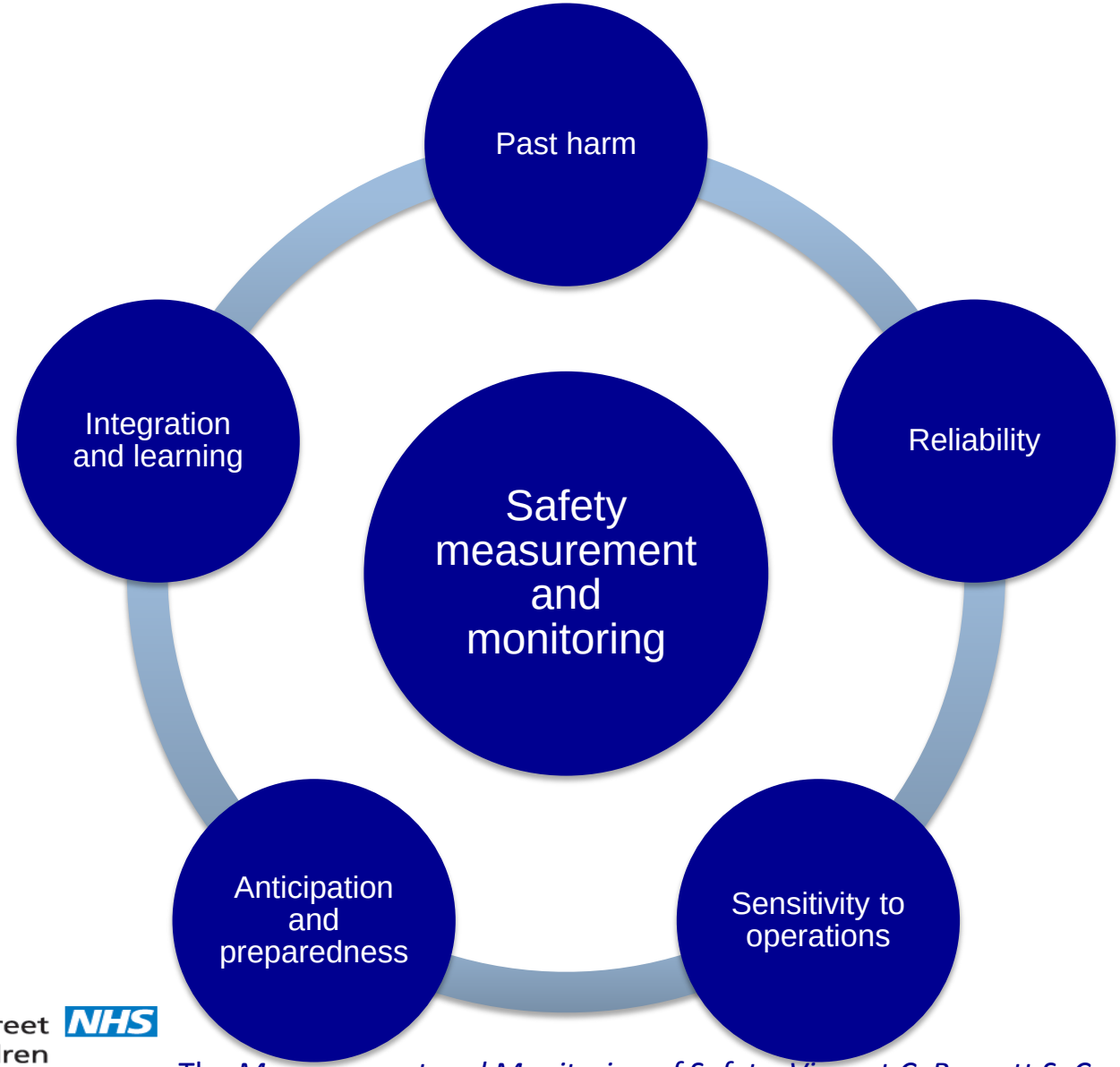
The *Measurement and Monitoring of Safety*. *Vincent C, Burnett S, Carthey J*. THF. April 2013

Framework for safety



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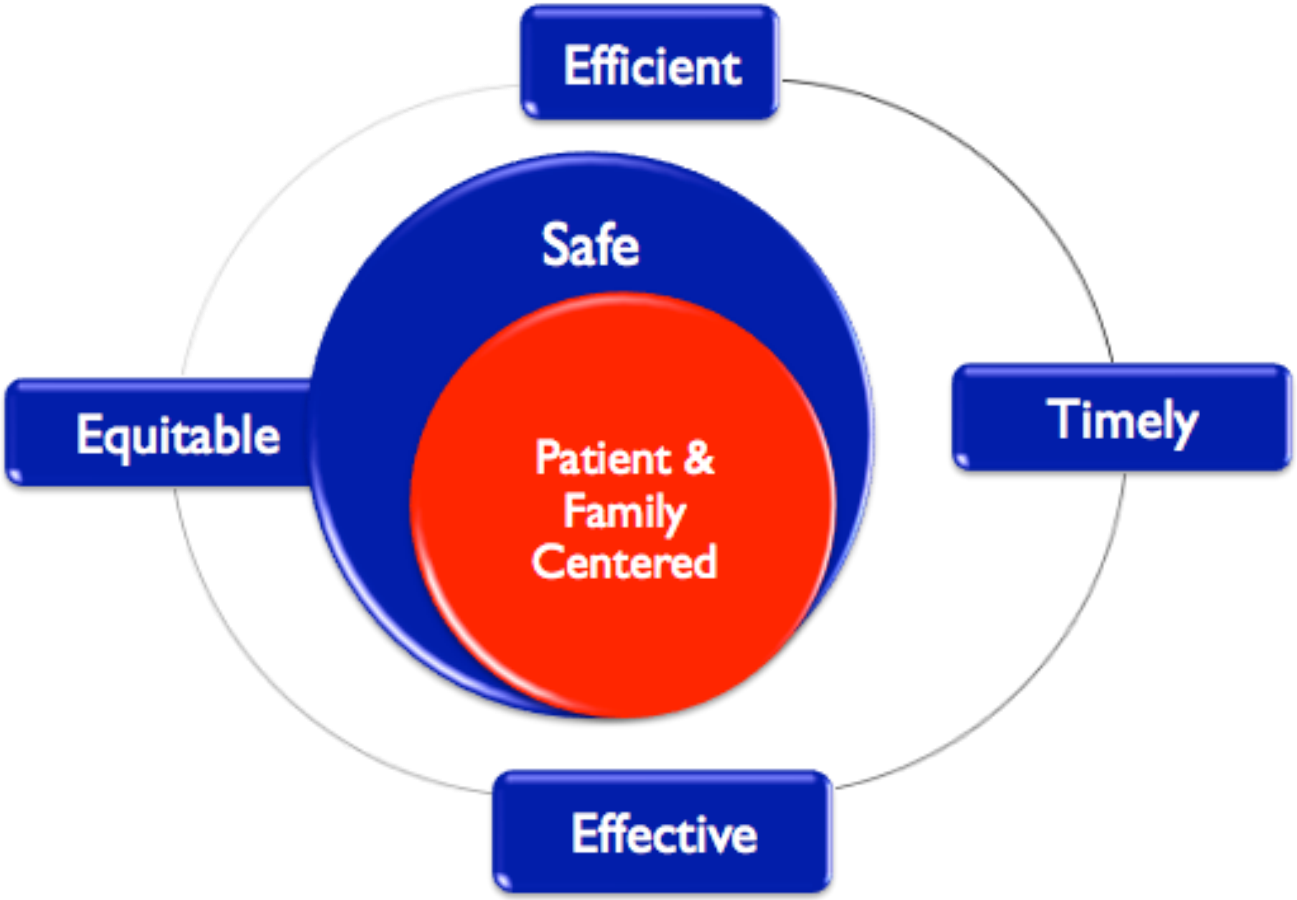
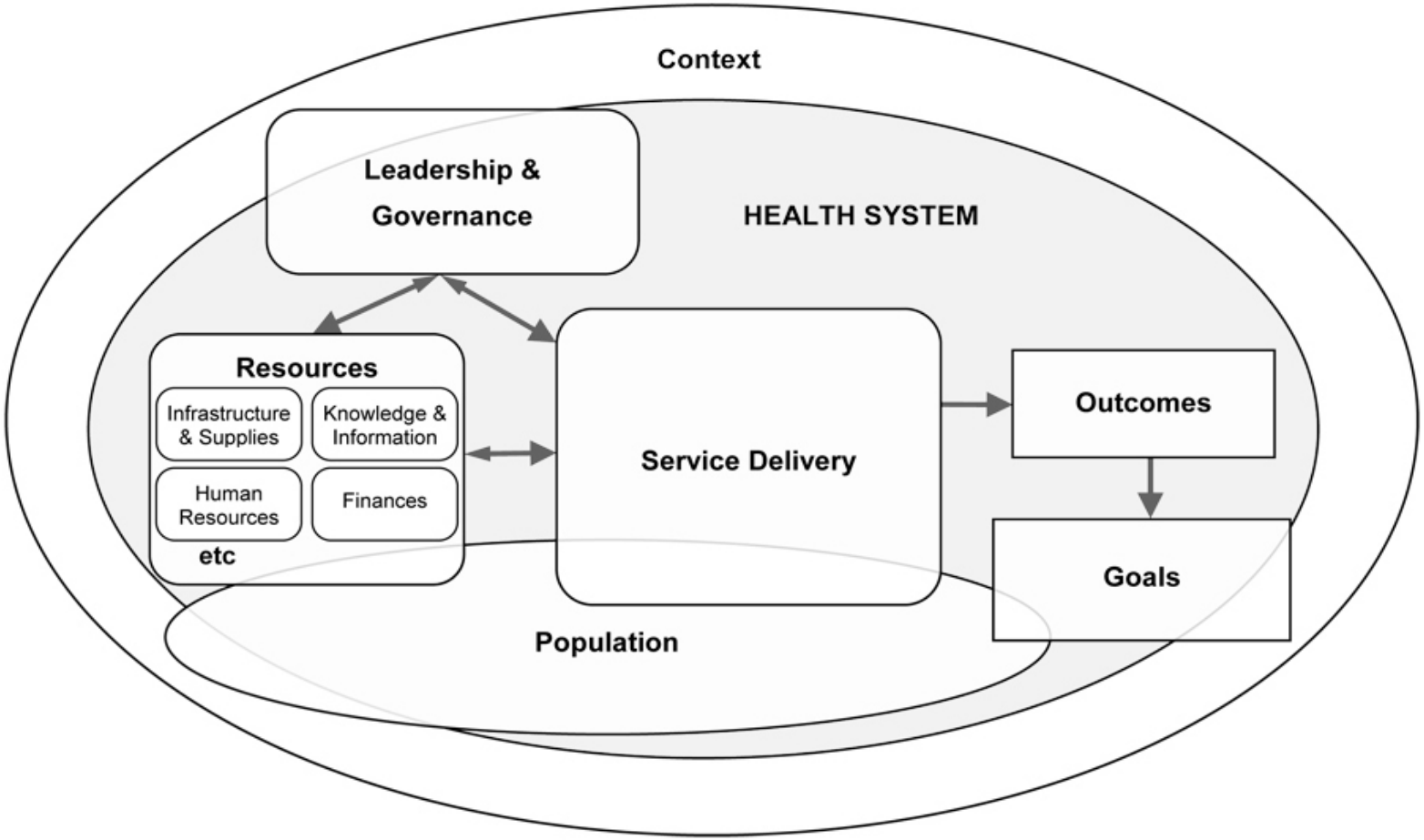
The *Measurement and Monitoring of Safety*. *Vincent C, Burnett S, Carthey J*. THF. April 2013

Quality Care



Complexity



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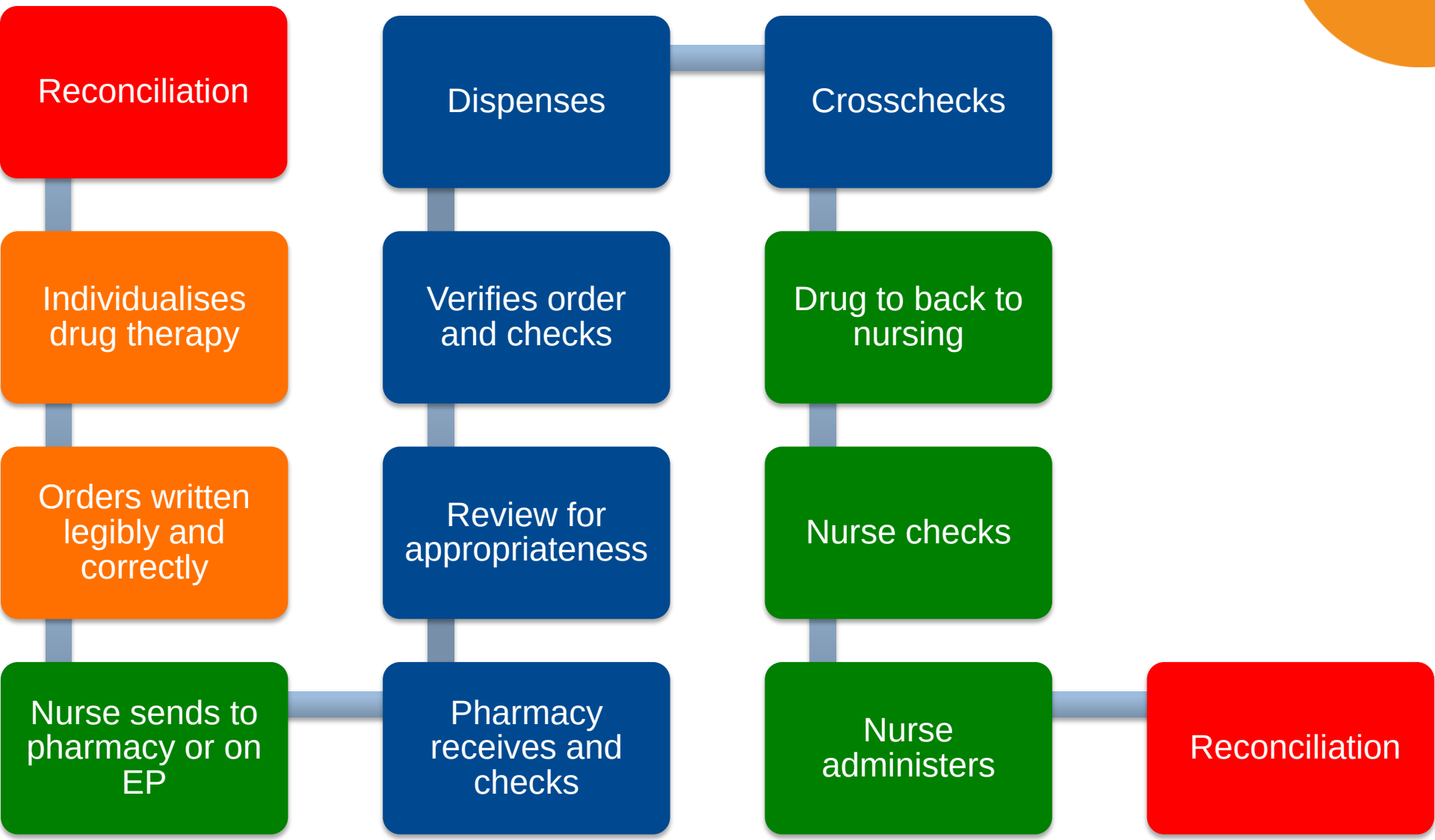
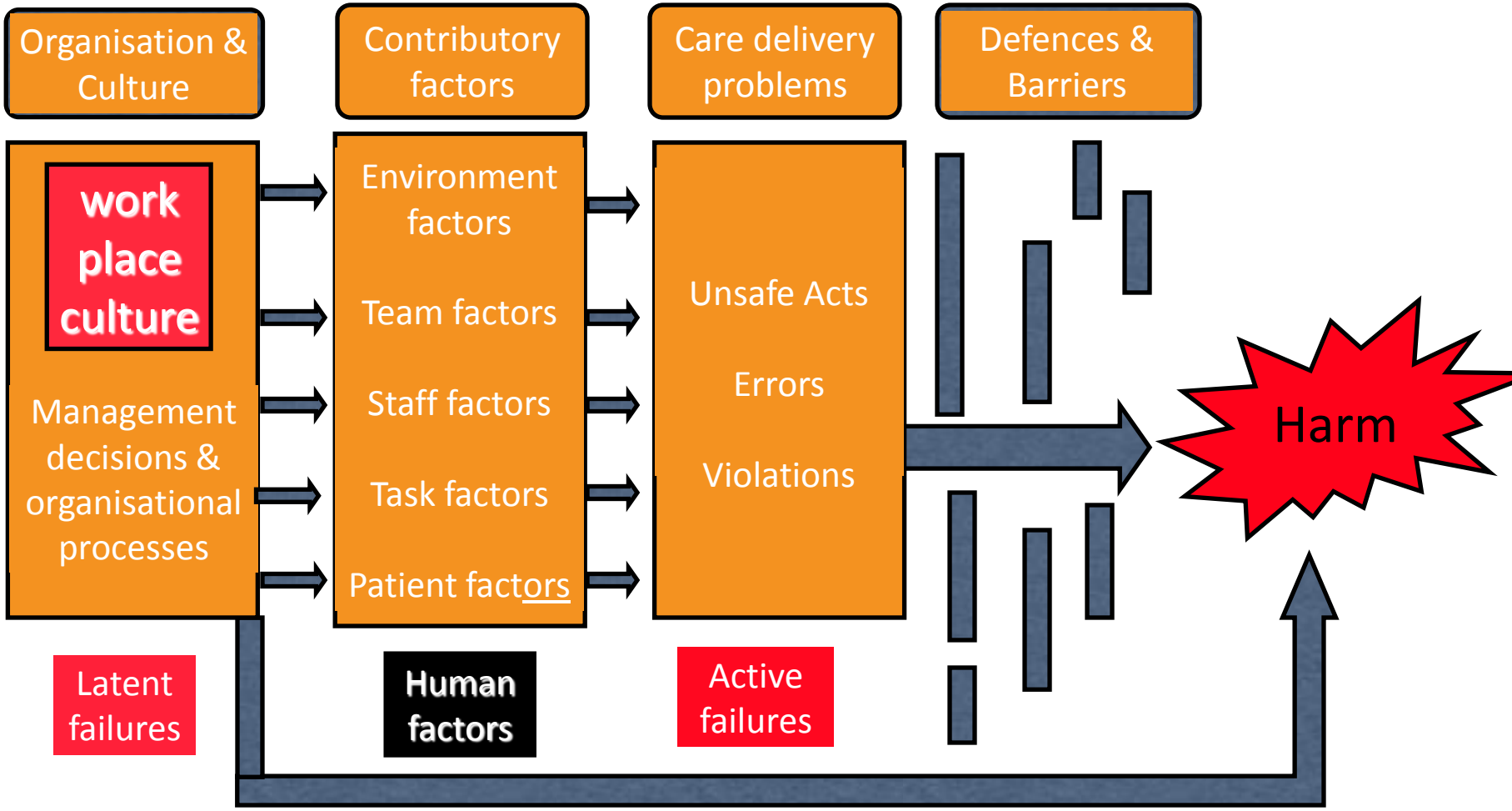
www.strengtheninghealthsystems.be/

Complexity simplified



Tool 1Understand the processes of harm



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Reference Reason and Vincent

What is reliability?

The child or young person should receive, without delay, the care that is needed and wanted the first time every time no matter where he/she lives.

The child receives the correct medication at the right dose at the right time every time

Drug that is needed
no overuse and
underuse on time
and stopped on time

Drug that is
tolerated

Drug that is
works
no overuse and
underuse

Strategies to Address Adverse Events

- Regulations
- Inspections
- Practical approach-Target top offenders
- Naming

Will not get you to high level of reliability

No sustainable change

"Every system is perfectly designed to achieve exactly the results it gets."

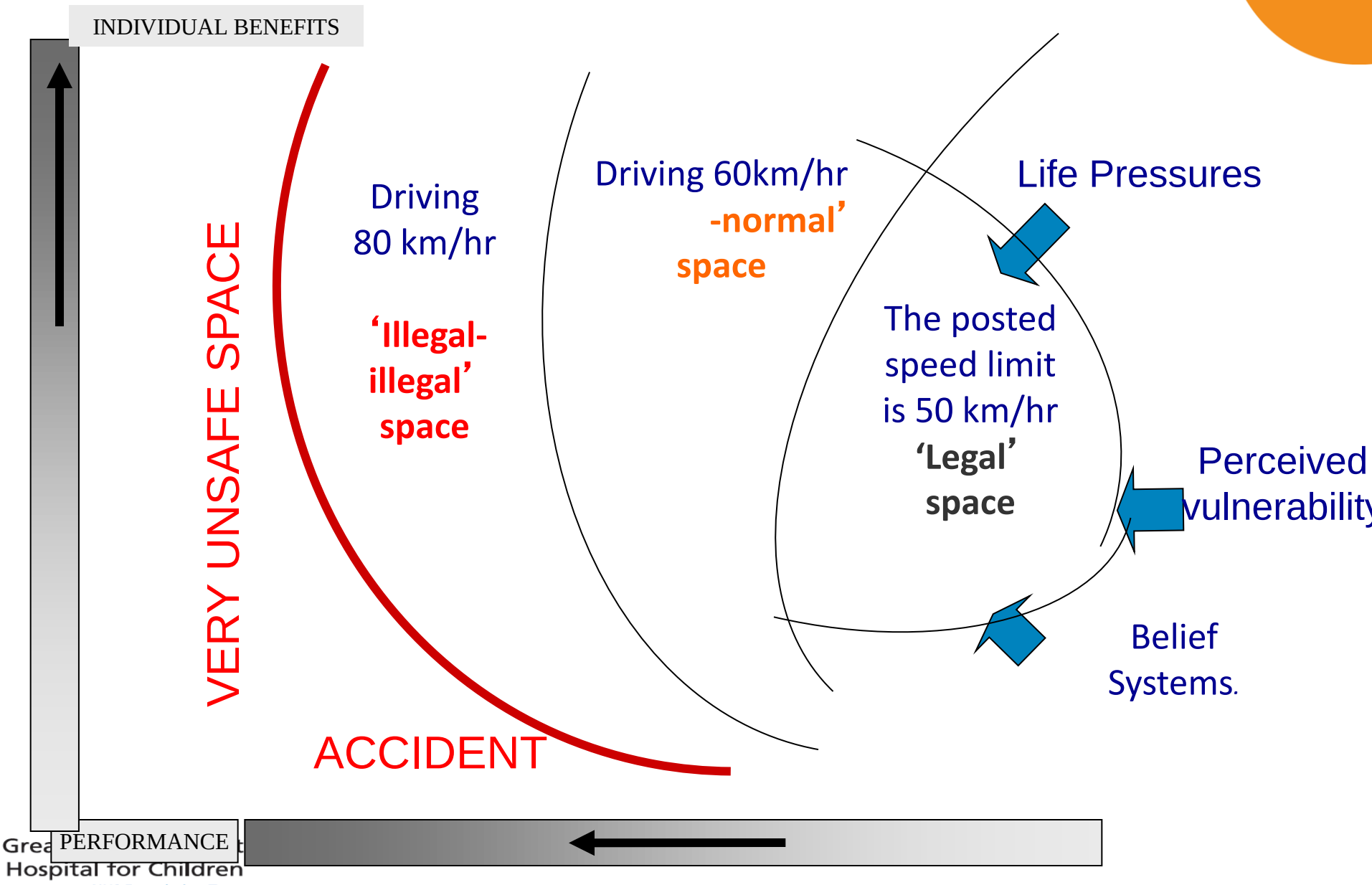
- Paul Batalden after Deming

Changing our role as professionals

- Limitations on working harder
- Eliminate professional autonomy
- Become equivalent actors
- System-level arbitration
- Simplify rules and regulations

Five System Barriers to Achieving Ultrasafe Health Care. René Amalberti, Yves Auroy, Don Berwick,; and Paul Barach, Ann Intern Med. 2005;142:756-764.

Tool 2 Understanding Violations



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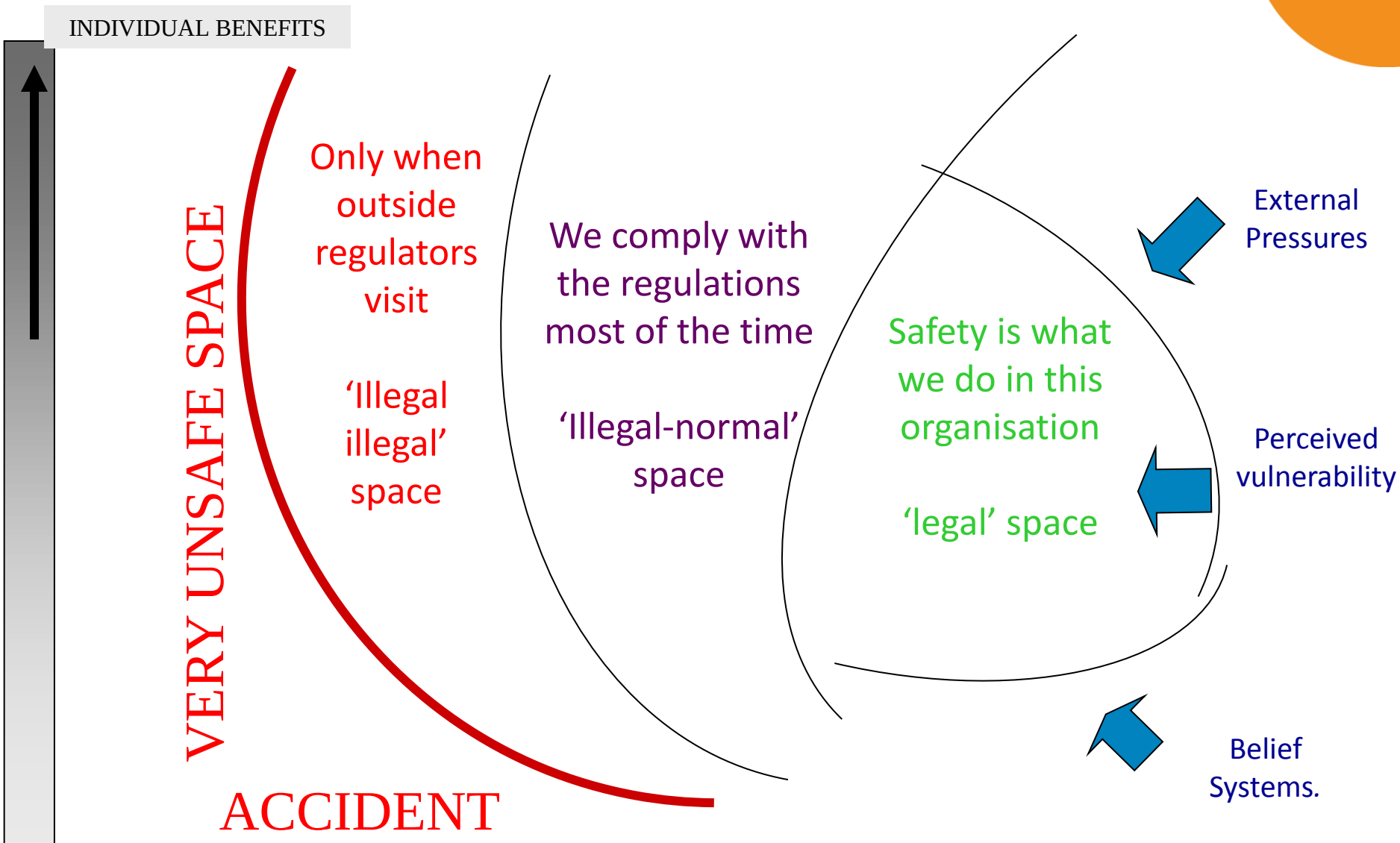
Understanding Violations



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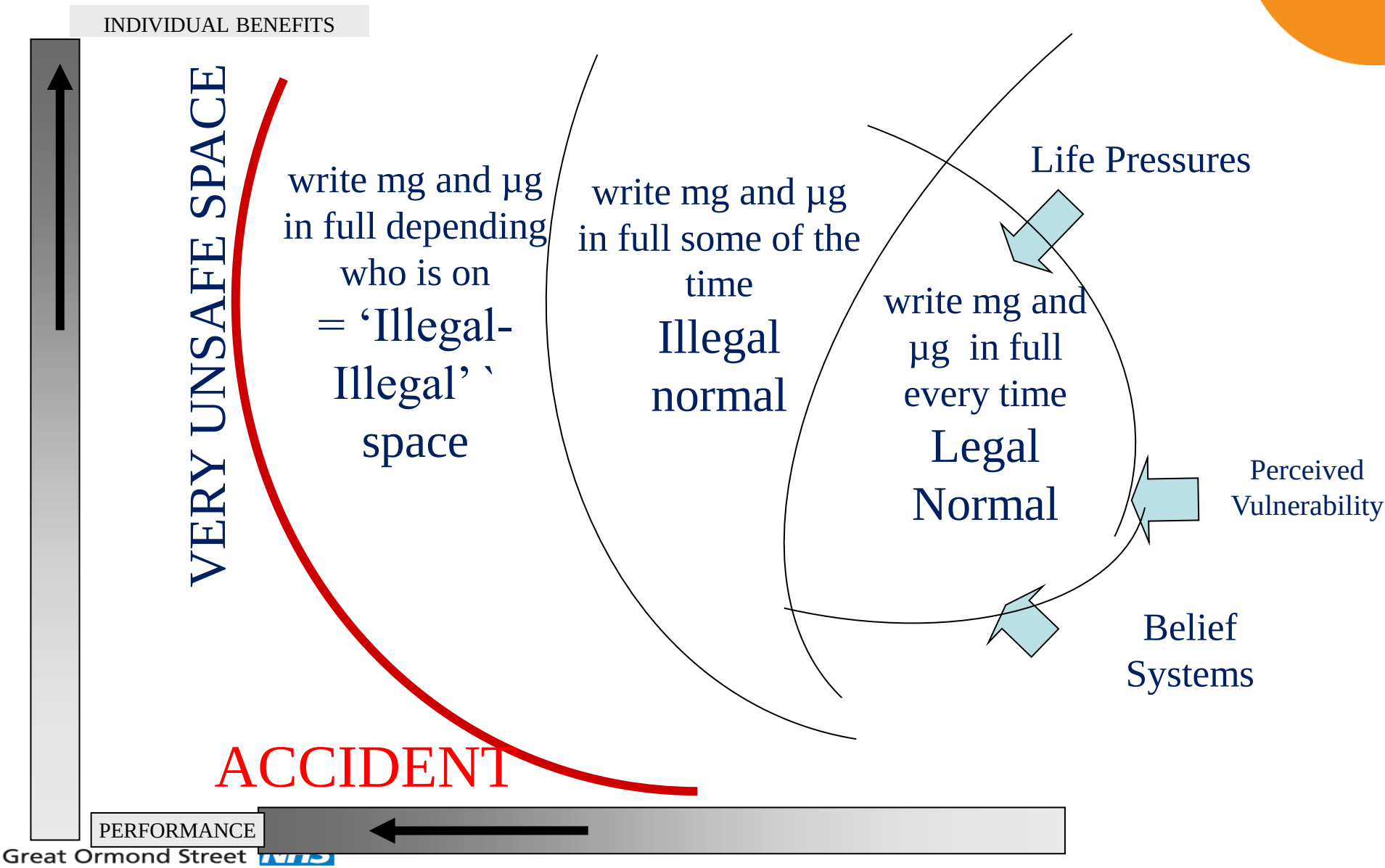
Reference Almaberti

System Migration to Unsafe Practices



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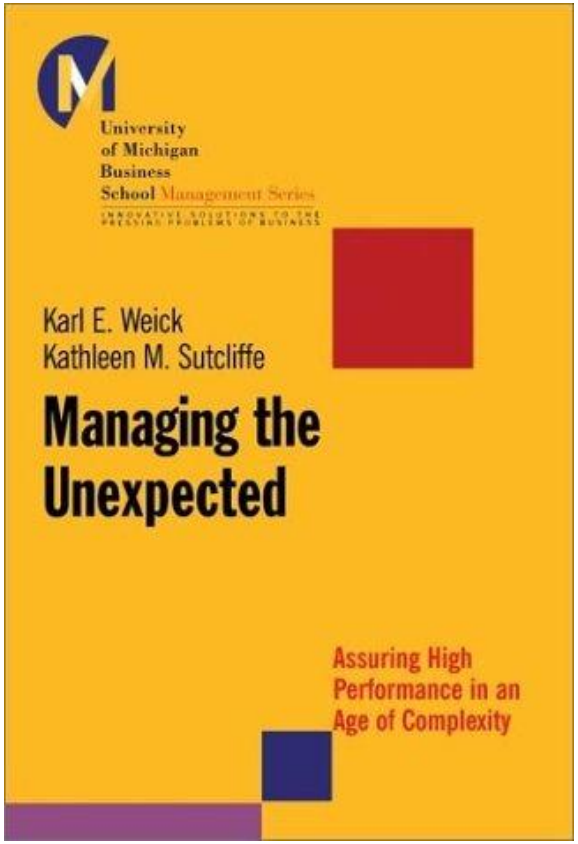
Reference Amalberti

Attributes of High Reliability Organizations

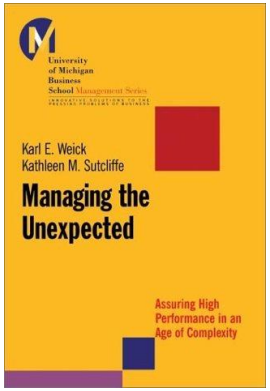
- Preoccupation with failure
- Reluctance to simplify interpretations
- Sensitivity to operations
- Commitment to resilience
- Deference to expertise



Weick, et al. Research in Organizational Behavior. 1999;21:81-123
Weick, Managing the Unexpected: Assuring High Performance in an Age of Complexity, Jossey Bass 2001

Mindfulness: Weick and Sutcliffe

"Together these five processes produce a collective state of mindfulness. To be mindful is to have an enhanced ability to discover and correct errors that could escalate into a crisis."



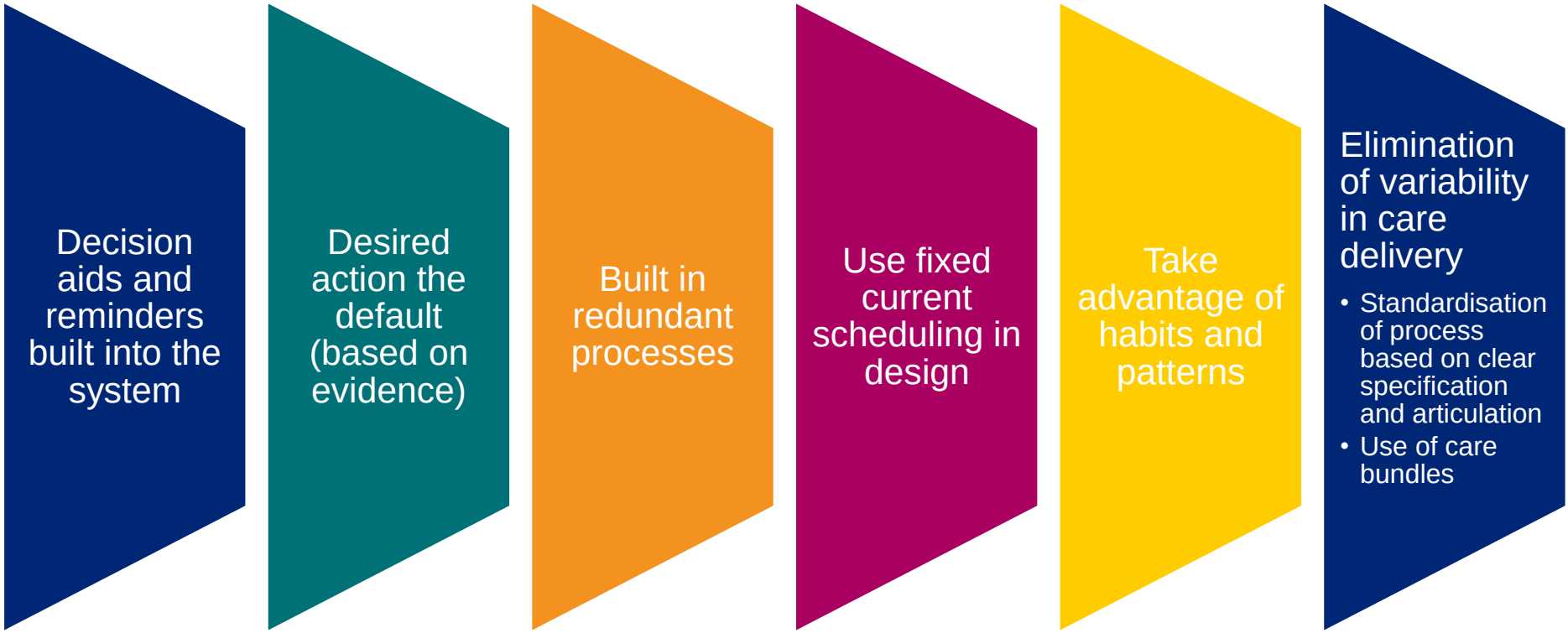
Level 1 reliability

Intent, Vigilance and Hard Work
Can achieve up to 80-90% Reliability

from R Resar, IHI

Level 2 reliability

Human Factors and Reliability Science
Can achieve up to 95% reliability



from R Resar, IHI

Care bundle and reliability

A bundle is a collection of processes needed to effectively and safely care for patients undergoing particular treatments with inherent risks.

It is a grouping of several **scientifically grounded elements** essential to improving clinical outcomes.

Several interventions are bundled together and, when combined, significantly improve patient care outcome.

A patient gets a **“Yes”** if we actually did everything we planned to do, and a **“No”** if anything, even just one process, was left out.

Level 3+ reliability

Moving towards High Reliability

Anticipation

- *Preoccupation with failure*
- *Reluctance to simplify interpretations*
- *Sensitivity to operations*

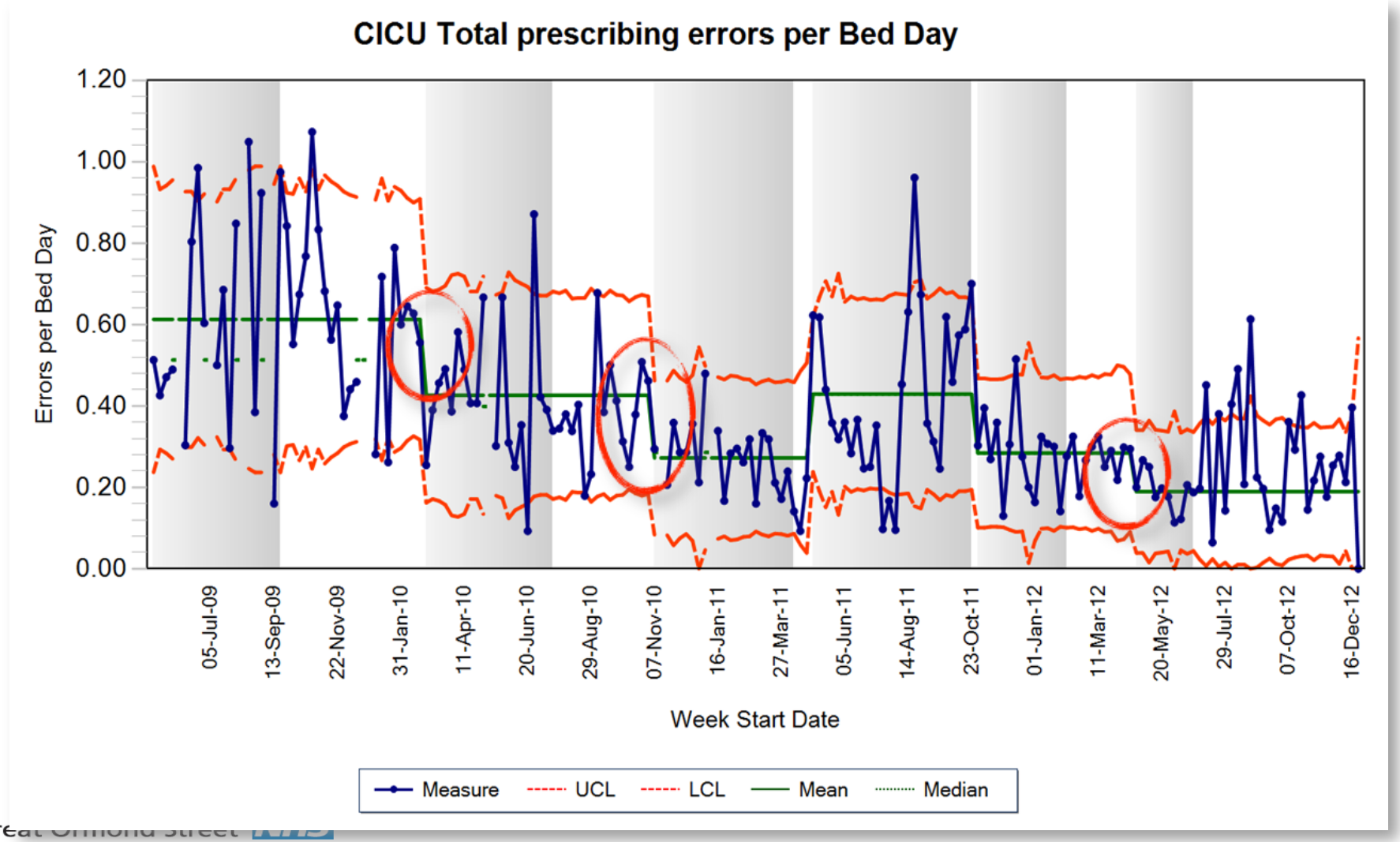
Containment

- *Commitment to resilience*
- *Deference to expertise*

Interventions that help

- E-prescribing and CPOE, particularly when coupled with CCDS
- Medication reconciliation on a regular basis, especially at transitions in care
- Clinical pharmacists on inpatient units
- Education of staff and trainees
- Bar-code systems
- Standardization and checklists
- System changes to encourage teamwork and open communication in a non punitive environment

Medication: Prescribing Errors
ICU GOSH



Administration

Children's Hospital LOS ANGELES
We Treat Kids Better

Medicus (Please don't) Interrupt-Us

Diane Grade, BSN,RN; Sherry Nolan, MSN,RN
Children's Hospital Los Angeles

Why did we do this?

- In the U.S. alone, >5million people are harmed annually by preventable medical errors, roughly equivalent to one full jumbo jet falling from the sky every day!
- The likelihood of making a medication error increases by 60% if the nurse is distracted, and doubles with 4 or more interruptions during a single med pass.
- Well-designed checklists improve outcomes even with expert users.
- Humans are not built to multi-task, although we persist in trying.

Patients are not the only victims of medical Errors.

- September 2010, Kimberly Hiatt, an experienced PICU nurse, made an error in drawing up a medication she had often given before. On the day of Hiatt's error she submitted a report on the hospital's electronic feedback system. "I messed" up, she wrote "I've been giving CaCl (Calcium Chloride) for years. I was talking to someone while drawing it up". Seven months after accidentally overdosing a fragile baby, Hiatt, overcome with despair, tragically took her own life.

In-House Research Showed:

- most medication errors occur during administration
- An average of 3 interruptions per medication pass was revealed by observational data collection.
- At Children's Hospital Los Angeles our multidisciplinary Shared Governance Quality Council was tasked with developing a quality improvement project aimed at decreasing medication errors.
- ➢ The project was initially piloted on two inpatient units during Spring of 2010. After a 3 month trial period there was a dramatic decrease in medication administration errors and the project was expanded to the other medical/surgical units.

Interventions

Committee members recommended adapting Kaiser Permanente's "Med-Rite" program as a quality improvement project to decrease interruptions and highlight the complex nature of medication administration.

Three Pronged Plan of Action – The 3 S's

Standardized Steps –A checklist to re-educate and reinforce the medication administration policy including "7 rights"

Sash - (Non-Interruption Wear) The bright yellow sash is worn during the entire medication administration process signifying that the nurse is administering medications and should not be interrupted.

Silence - Medication rooms are designated as silent areas where nurses double check and prepare medications.

•PCS Grand Rounds: "Reducing the Risk: Real Reasons for '5 Rights"

-October 2011, Implementation of house-wide medication administration audits

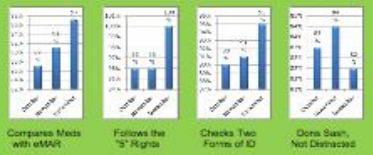
-Implementation of electronic incident reporting system

-Tall posters on every floor at elevators
-Increased emphasis on standardized checklist
-PowerPoint presentation given to all unit leads

Introduction of Sash Man

Outcomes

Almost 2 years into the project, we have increased compliance with standardized steps, while interruptions a variable.. For the past six months we have been gatherin observational data of 30 monthly audits/unit.
New challenges continue, however, requiring constant attention, revision and updating.



Challenges:
- Increase in interruptions and number of administration related medication errors associated with:
- Moving & adapting to new hospital work environment:
- Increased distances
- Polycom phones
- Limited public space available for educational posters

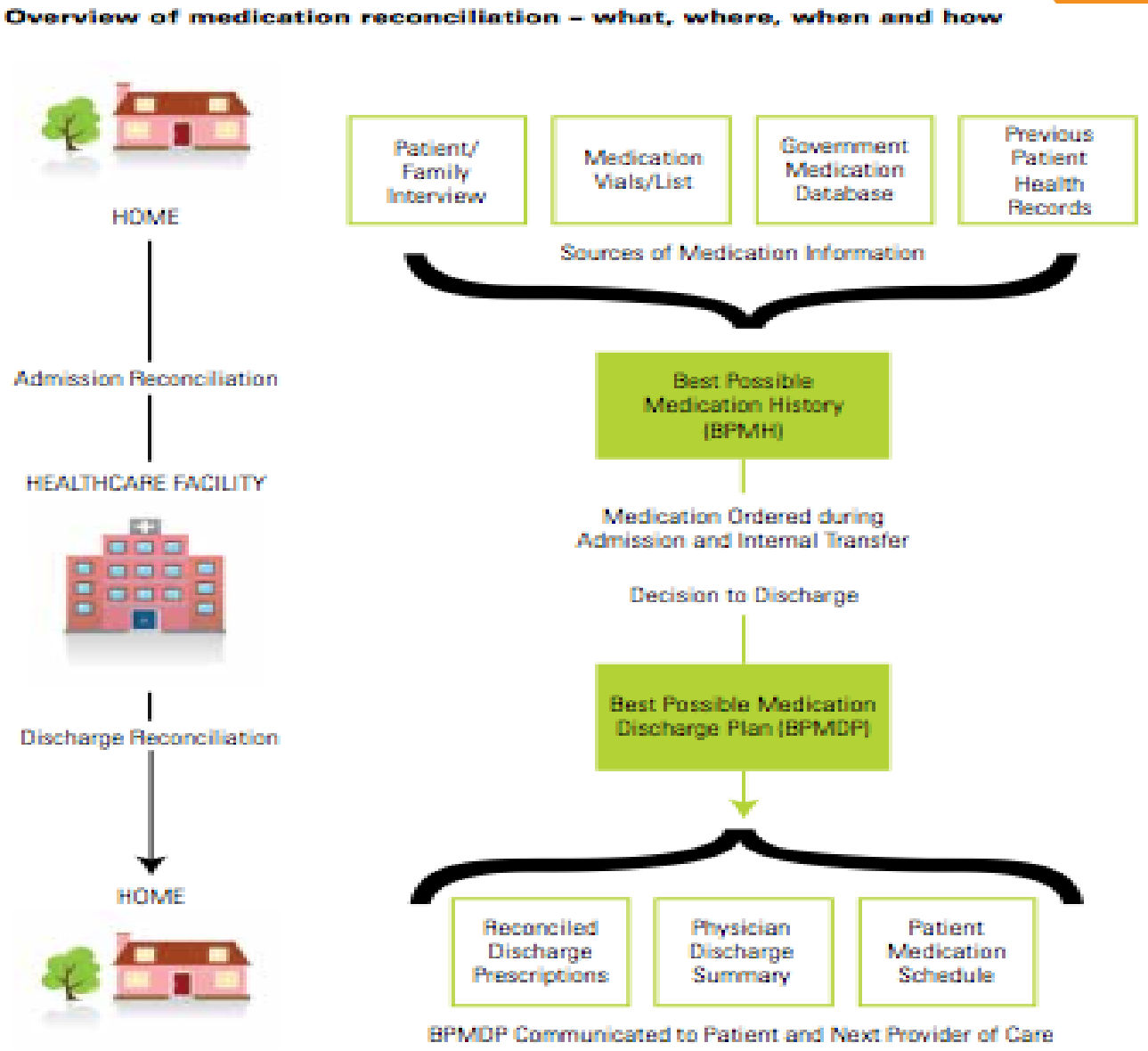
Lessons Learned (Importance of):
- Positive reinforcement –Pizza lunches for unit with best quarterly compliance
- Consistency and compliance -Deviation in practice produces mistakes
- Increased transparency -"Spotlight on Patient Safety" – (Sharing real incidents for staff learning)
- Administrative support -With increased administrative support (i.e., mandated house-wide audits), both awarenes and compliance are rising.

Moving Forward:
- Expansion to the outpatient units and ICUs
- "Keeping it fresh" -Development of comic relief video
- Revision of Policy & Procedure

Thanks to Kaiser Permanente's "Med-Rite" program for its innovative, willingly shared and inspirational initiative.

Reconciliation

Olavo Fernandes and Kaveh G. Shojania Medication Reconciliation in the Hospital Healthcare Quarterly Vol.15 Special Issue 2012



Source: Adapted from Pharmacy Practice 2009;2:58-26 with permission.

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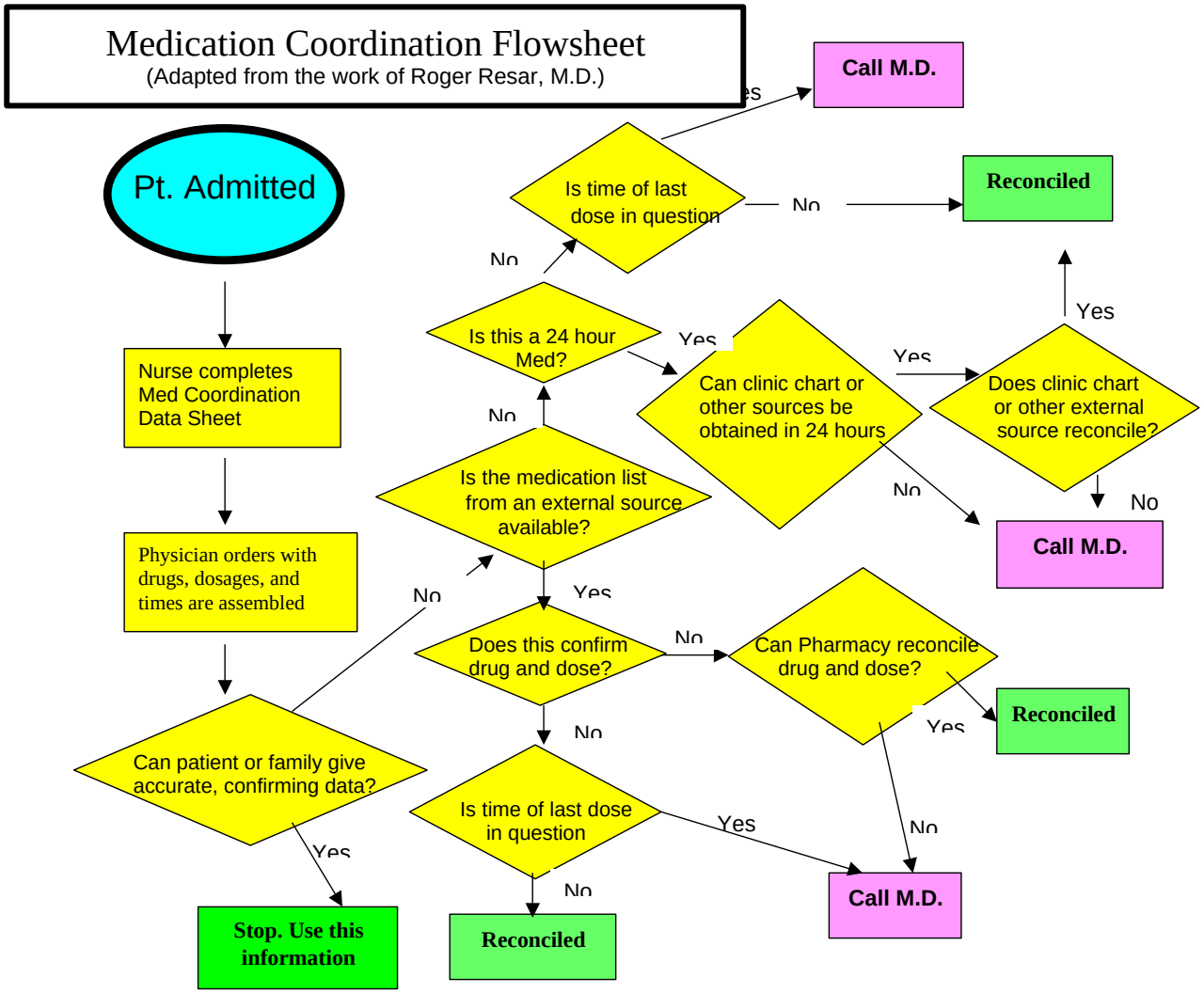
Coordination

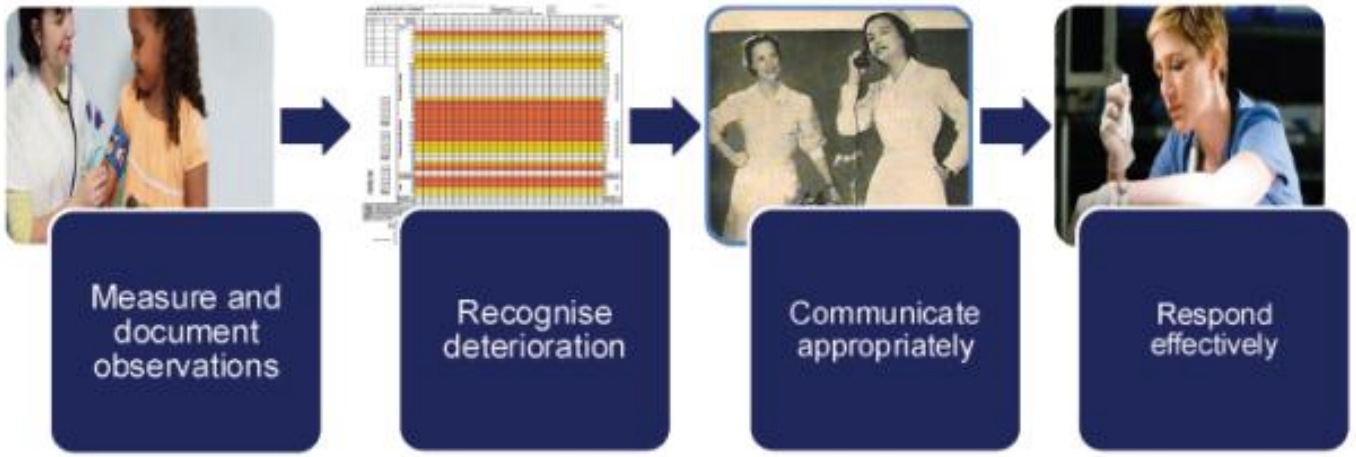


Thanks to Glen Billman

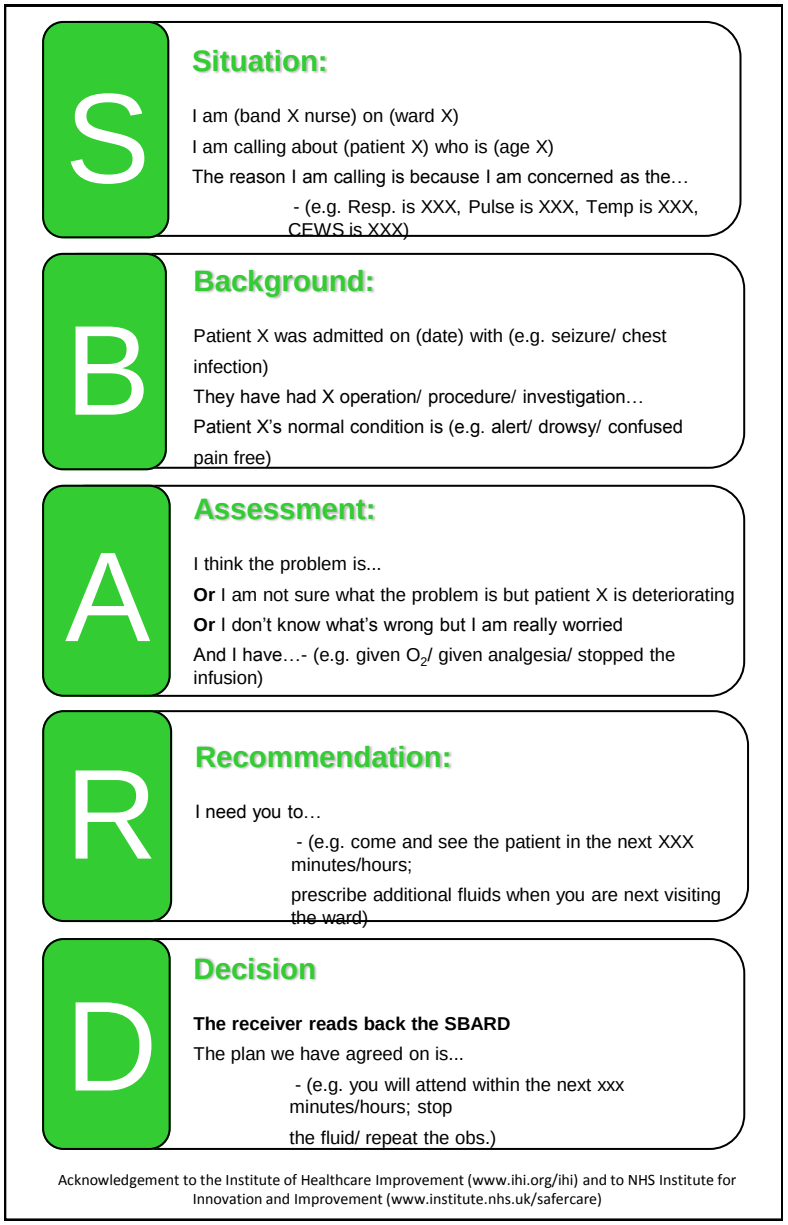
Deterioration

NHS
Institute for Innovation and Improvement

Recognising and responding to clinical deterioration



Communication



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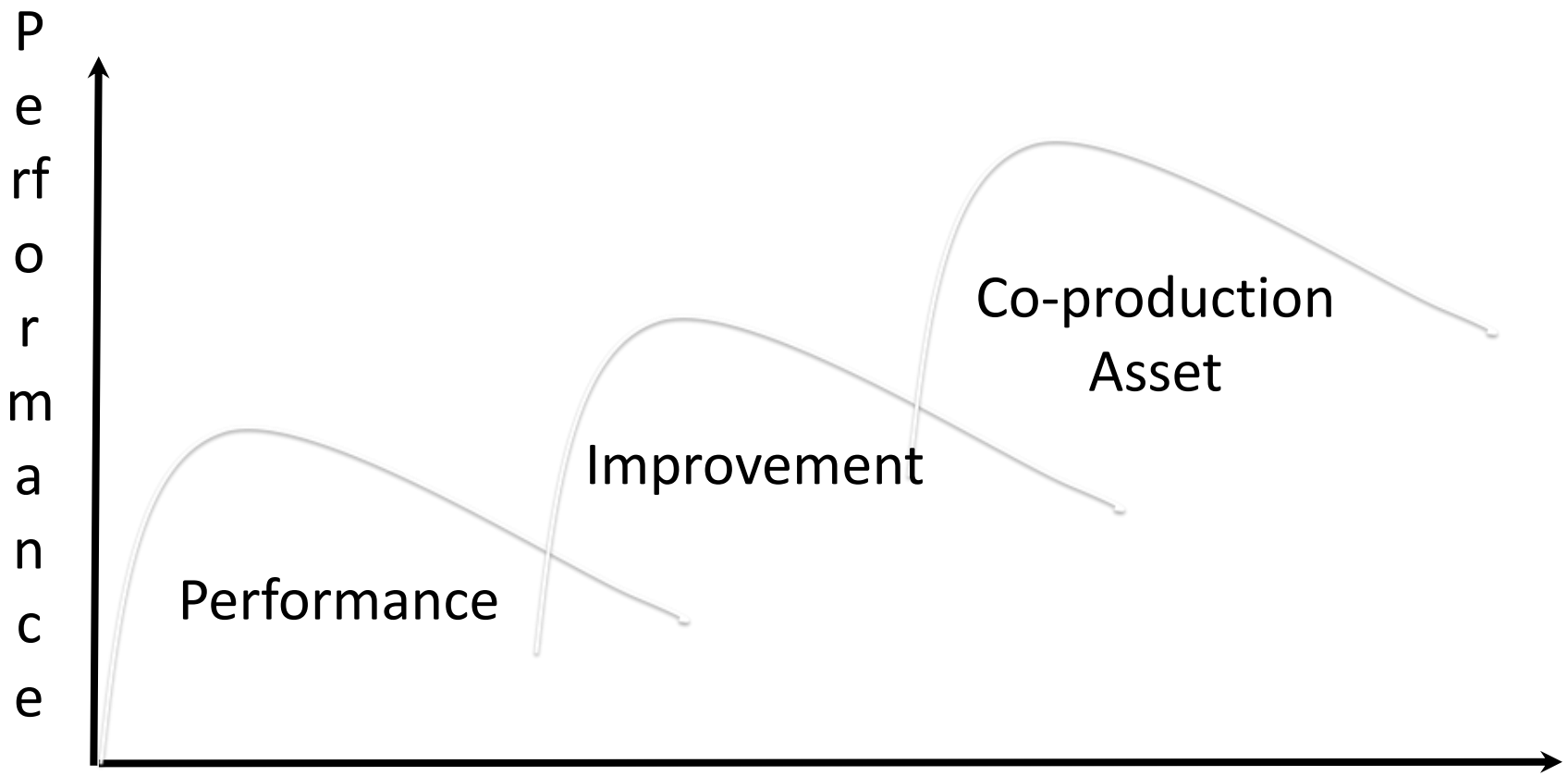
Getting to the third curve



What we permit we promote	Zero tolerance for deviance
Understand the human factors	Change the parameters

Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives

Resource

http://www.pipsqc.org/MedicationSafetyResources.aspx

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